

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



10/534495



(43) International Publication Date
27 May 2004 (27.05.2004)

PCT

(10) International Publication Number
WO 2004/044523 A1

(51) International Patent Classification⁷: G01B 11/25

(21) International Application Number:
PCT/GB2003/004858

(22) International Filing Date:
11 November 2003 (11.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0226241.8 11 November 2002 (11.11.2002) GB

(71) Applicant (for all designated States except US): QINETIQ LIMITED [GB/GB]; Registered Office, 85 Buckingham Gate, London SW1 6PD (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): ORCHARD, David, Arthur [GB/GB]; QinetiQ Limited, Malvern Technology Centre, St Andrews Road, Malvern, Worcestershire WR14 3PS (GB). LEWIN, Andrew, Charles [GB/GB]; QinetiQ Limited, Malvern Technology Centre, St Andrews Road, Malvern, Worcestershire WR14 3PS (GB).

(74) Agent: DAVIES, P.; D/IP QinetiQ Formalities, Cody Technology Park, A4 Building, Room G016, Ively Road, Farnborough, Hampshire GU14 0LX (GB).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

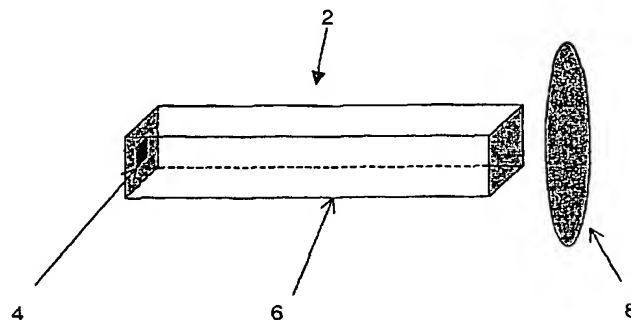
— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: STRUCTURED LIGHT PROJECTOR



(57) Abstract: This invention relates to an illumination means for illuminating a scene with a two dimensional pattern of intensity, such as an array of distinct spots or array of lines. A light source (4) such as an LED is arranged to illuminate the input face of a light guide (6), either directly or through a mask. The light guide comprises a solid or hollow tube, generally of a constant, regular cross section which is arranged to create multiple images of the light source. Projection optics (8) is arranged to project the array towards the scene with a larger depth of field than conventional techniques.

WO 2004/044523 A1